

Model			WM85R	
Panel	Diagonal Size		85"	
	Type		New Edge, 60Hz	
	Resolution		3,840 x 2,160 (Landscape)	
	Brightness (Typ.)		350cd/m <sup>2</sup> (220cd/m <sup>2</sup> with glass)	
	Contrast Ratio (Typ.)		4,000 : 1	
	Viewing Angle (H/V)		178 : 178	
Sound	Response Time (G-to-G)		6ms (Typ.)	
	Speaker Type		Built in Speaker (10W x 2CH)	
Connectivity	INPUT	RGB	N/A	
		VIDEO	HDMI 2 (Rear 1, Front 1), DP 1, OPS I/F	
		AUDIO	N/A	
	OUTPUT	USB	2 (Main/Tray), 2.0/3.0 External(Tray)	
		RGB	N/A	
		VIDEO	HDMI 1 (Tray)	
INTERNAL	AUDIO	1 (Stereo Mini Jack)		
	Touch Out	Touch Out 2 (USB Upstream Type, Front 1, Rear 1)		
	SENSOR	N/A		
EXTERNAL	CONTROL	Touch Input, RJ45, RS232C (for SVC)		
	Type		IR	
	# of Drawing		4 drawing	
Touch	Touch Pen Type		Passive Pen with magnet	
	Object Recognition Range		2mm/ 4mm / 8mm / 50mm (Brush Mode : Dynamic Object Recognition)	
	Touch Response Time		TBD	
Power	Power Supply	Type	Internal (Main 1ea, OPS 1ea)	
		AC	AC100-240V 50/60Hz	
		Power	418 (OPS 19V/3.7A)	
	Power Consumption	Max [W/h]		151
		Typical [W/h]		380 (OPS 19V/3.7A)
		Rating [W/h]		0.5
Dimension (mm) (W * H * D)	Stand-by [W/h]		1,425.38 (OPS 19V/3.7A)	
	BTU [W/h]		1942.8 * 1144.1 * 69.4	
	Package		2136 * 1311 * 260	
Weight (kg)	Set		74.5	
	Package		91.5	
	Color		Charcoal Black	
Mechanical Spec	VESA Mount		600 * 400	
	Protection Glass		Yes	
	Stand Type		Wall Mount	
	Media Player Option Type		OPS Slot support	
	Rotation		Landscape only	
	Power Cable Length		3m	
Operation	Accessory		Power Cord, USB Upstream Cable (2ea), Pen (2ea, Black), OPS Box, Warranty/QSG	
	Operating Temperature		0°C ~ 40°C	
	Humidity		10 ~ 80%, non-condensing	
Feature	Special	Key	Flip App	
		H/W	Touch Overlay (IR), Front Connectivity (Tray), OPS I/F Support (w/OPS Box)	
		S/W	Built in Speaker (10W x 2), WiFi/BT Module Embedded	
	Internal Player (Embedded H/W)	Platform		Flip S/W
		Processor		Muse-M (Tizen 5.0)
		On-Chip Cache		CA72 Quad (1.7GHz) 2MB L2
		Memory		L2 : 2MB
		Clock Speed		1.7GHz CPU Quad
		Main Memory		LPDDR4 1.6GHz 64bit 2.5GB
		Interface		GPU : MaliG51 MP4@760MHz
		Graphics		8GB (2.65GB Occupied by O/S, 5.35GB Available)
Storage		USB 2.0		
IO Ports		Tizen 5.0 : Samsung Proprietary OS (VDLinux)		
Certification	Security		802.1x (WPA2 Enterprise) : EAP-TLS, EAP-TTLS, EAP-PEAP	
	Included		Power Cord, USB Upstream Cable (2ea), Pen (2ea, Black), OPS Box, Warranty/QSG	
Accessories	Optional	Wallmount	WMN8200SF	
		Specialty	Flip UX	



## Samsung SMART Signage Samsung Flip

WM85R

Create the next generation of learning

Samsung Flip is an intuitive and easy-to-use digital board that can meet the demands of modern education. While teachers are always looking for innovative solutions to create a more engaging classroom environment, students also have high expectations for the digital experience they receive while learning. The WM85R can meet the requirements of both teachers and students, providing enhanced connectivity options, UHD resolution on a larger 85-inch display, and various powerful features to help them upgrade their education environment.

### Highlights

- Intuitive pen and brush mode with multi writing up to 10 on any background for optimized classroom engagement
- Versatile connectivity options and easy sharing for seamless education experience
- Powerful touch out function on larger 85-inch UHD display for impactful learning
- Various form options and screen saver for always-on and effective student engagement
- Advanced control with 6-digit lock system and Remote Management solution for easy and simple management

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### Samsung Flip

For more information about Samsung Flip, visit [www.samsung.com/business](https://www.samsung.com/business) or [www.samsung.com/displaysolutions](https://www.samsung.com/displaysolutions)

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2020-07

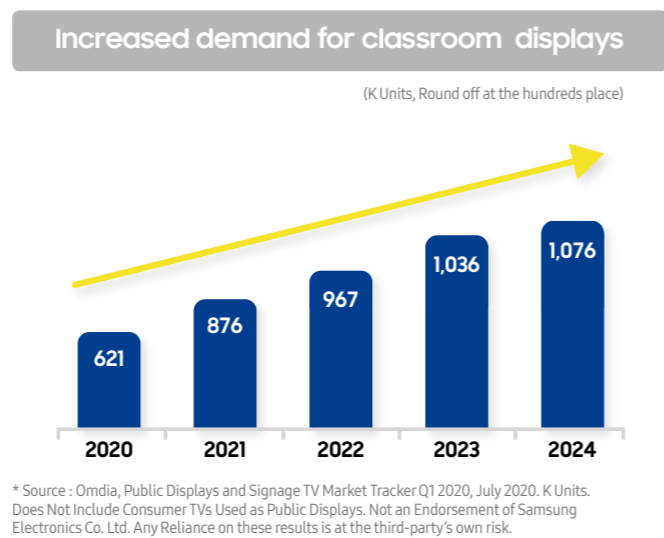
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## Digitalization of the education environment

As education changes globally, the demand for digital solutions is increasing significantly. Learning environments are changing and traditional classroom settings are being replaced by virtual setups that are more interactive and engaging. Analog boards do not offer the same capabilities as digital solutions that can deliver content in multiple ways for a better classroom experience.

More than ever, government initiatives to transform traditional classrooms to digital ones, are now emphasized by the increase in demand for virtual learning environments. As a result of this increased demand, global classroom displays are expected to grow to more than one million units by the end of 2024, representing a 15% CAGR.



## Improve student engagement with digital board

Samsung's Flip WM85R is optimized to meet the digital demands of modern education. Whether painting in art class, editing images or annotating on a background, the Flip is an intuitive whiteboard that allows any teacher to easily lead their class. Versatile connectivity options (USB/HDMI/DP/NFC) and an OPS\* slot enables various solutions for education to be utilized — including a teacher's personal devices and even third-party education solutions and software — creating a seamless classroom environment. The larger display size also creates a more immersive experience, supported by features such as multi writing for up to 10 people, one touch device synchronization, advanced image editing capabilities and total peace of mind through a 6-digit locking system.

\* OPS : Open Pluggable Specification



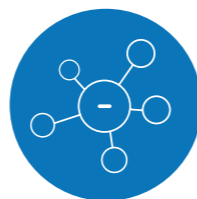
**Optimized for education**

- Versatile connectivity
- Multi writing / UHD large display
- Touch out
- Various form option



**Designed for creativity**

- Pen mode
- Brush mode
- Annotation on
- Selection tool / Merge to roll
- Seamless scroll / Quick finder

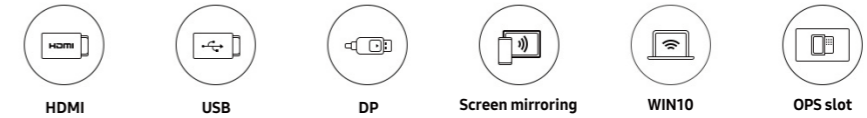


**Advanced for collaboration**

- Web browser
- Document viewer
- Screen saver
- Easy sharing
- 6-digit lock / File security
- Remote Management / OTN\*

\* OTN : Over The Network

## Optimized for education



### Multiple connection options

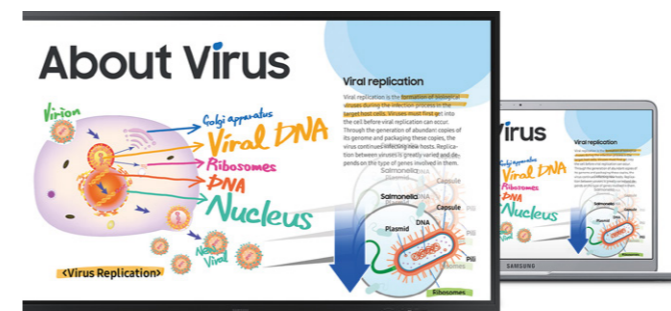
A versatile selection of connectivity options, including USB, HDMI, DP, NFC, screen sharing and the recently added OPS slot, ensures the Flip is accessible from a variety of devices. When teaching a class, the Flip works seamlessly in the background to allow teachers to focus on engaging their students.



### Multi writing for up to 10 on larger sized display

Flip provides an intuitive tool for up to 10 people to use simultaneously. Students can write, solve math problems and draw pictures all at the same time on the large, 85-inch clear UHD display. These intuitive features ensure that all participants can actively and directly take part in various class environments to increase class efficiency, engagement and ultimately enjoyment.

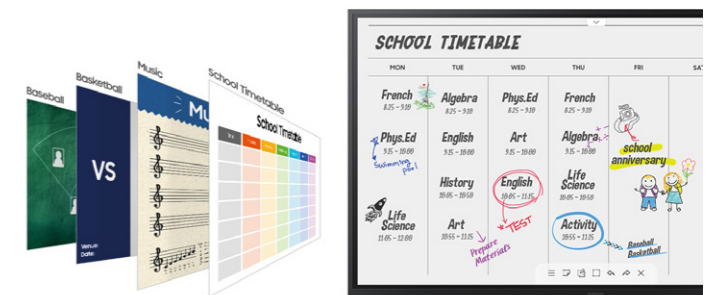
\* WM85R supports multi writing feature up to 4 currently. The feature 'multi writing up to 10' will be available within 2020 and it will be updated by new firmware release.



### Synchronized screen viewing

Teachers are able to connect their personal devices to the Flip using the 'touch out' function, controlling the content on display in real-time while having the flexibility to move around. Any edits made to the content on-screen will also be mirrored back to the personal device and vice versa for efficient collaboration.

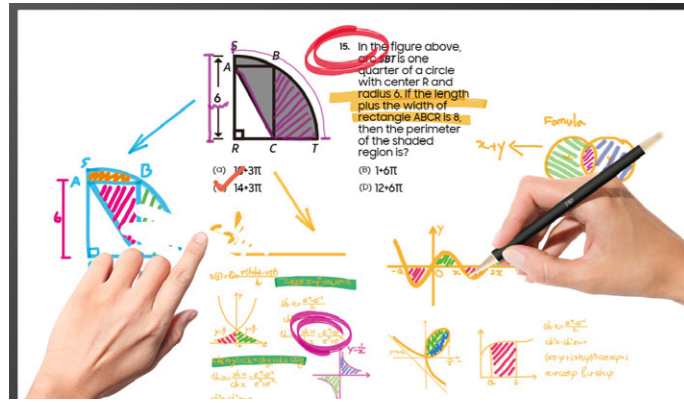
\* Touch out control is available through a touch USB cable connection or UIBC-connected Android mobile devices (2016 or later) and Windows 10 PCs.



### Varied formats for any classroom needs

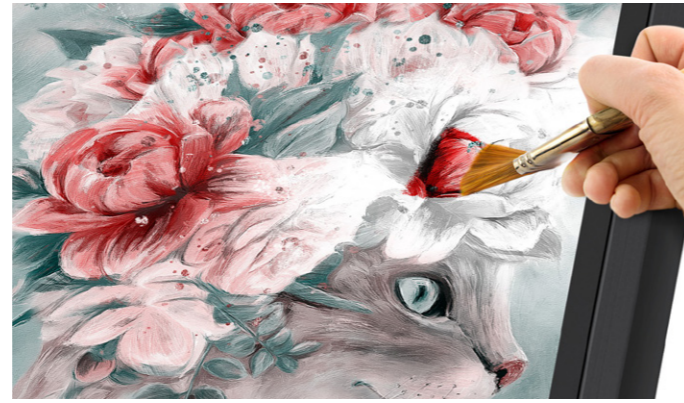
Samsung Flip provides a variety of templates and tools – from timetables to schedule calendars to strategy boards – that can be used in class and school environments. Instead of writing on physical paper and discarding it, teachers and students can increase efficiency and enjoyment with a permanently available, digitally displayed template.

## Designed for creativity



### Draw, write & inspire new ideas

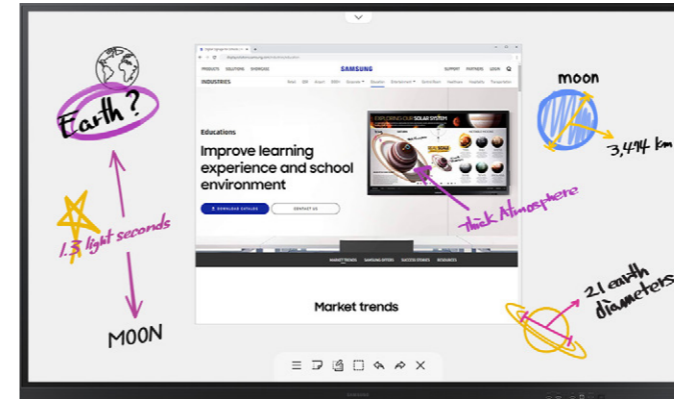
Samsung's Flip provides a wide palette of colors and range of pen and brush thicknesses to ensure a smooth writing experience. Users can freely write and draw text, shapes and anything needed within the classroom. Any drawing can then easily be erased with a finger or a palm swipe when required.



### Creating a masterpiece

When using brush mode, the Flip recognizes a wide range of thicknesses, ensuring teachers and students can create art at the stroke of a brush. Water and oil painting modes allow different styles and textures, while a full, vibrant color palette allows flexible color mixing to truly embody the experience of art.

## Advanced for collaboration



### Simple web surfing while annotating

Samsung Flip now supports web browsing and allows users to access the internet directly through the display, with no additional device needed. Once the browser is open, annotation is still available for users to draw around the browser too for on-the-spot collaboration.



### Intuitive document access

Samsung Flip gives users the capability to open Microsoft Word, PowerPoint, Excel and Adobe PDF files directly with a built-in document viewer, ensuring easy access regardless of the content source for improved class engagement.



### Write on any background

Samsung Flip allows people in the classroom to write on any background source. By simply clicking the note layer button, users can enjoy smooth writing anytime, anywhere on any content displayed, without affecting any work behind the original layer.



### Custom screensaver for constant communication

When the display is not in use, users can select a custom image to be shown on the Flip as a screensaver. This means the Samsung Flip can help to announce and promote a wide variety of communications tailored for students, such as an upcoming events calendar.



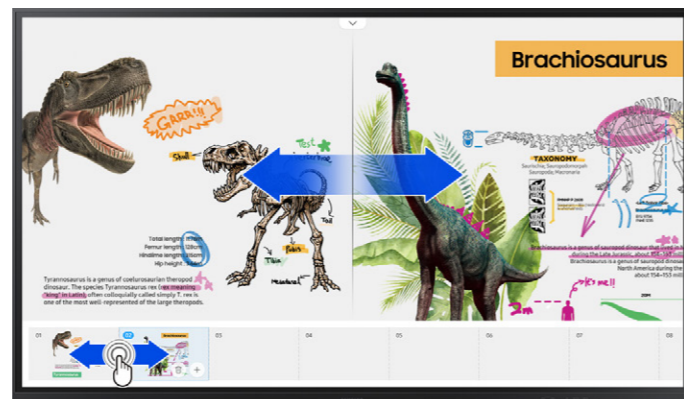
### Effortless class recap distribution

Following any class, teachers can distribute recaps to all students, removing the frustration traditionally associated with handwritten notes. Important conversations and content are stored within the Flip in real-time, easily shareable across mobile and digital channels.



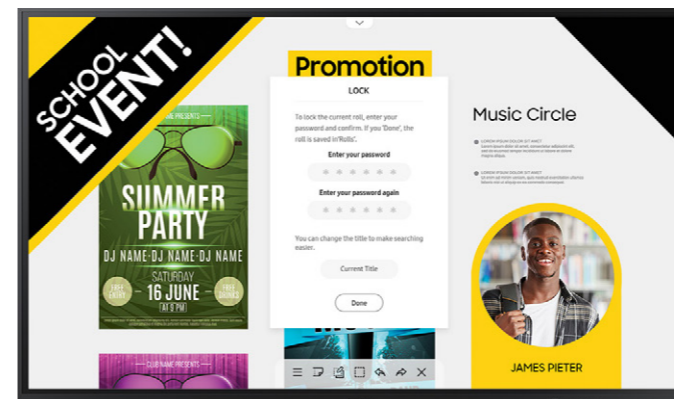
### Flexible image editing

When using the versatile Samsung Flip, teacher and students can quickly and easily select, move, crop, capture, and edit any images. Each image can also be merged to the roll with just one click of a button, allowing it to be edited or erased to enable optimized creativity in a simple and easy way.



### Easy content navigation

Samsung Flip has up to 20 pages of writing space per roll, allowing users to seamlessly scroll through pages. The Flip's intuitive, user-friendly menu simplifies navigation and saves time, while the quick finder feature allows users to preview content and make instant changes directly on the screen.



### Safe, secure content protection

Samsung Flip ensures that confidential class information remains in the right hands. Using its reinforced, 6-digit lock system, each class leader is able to safeguard sensitive content, lock the display and remove critical content from view. In addition, users can set the Flip to delete files regularly for enhanced security.



### Comprehensive control options

Users can remotely control critical display settings on the Flip through Samsung's Remote Management solution. This provides the ability to power the display on and off, change the pin code, lock the network or USB port and adjust proxy server settings for enhanced convenience. In addition, the OTN capability enables firmware updates automatically for convenient management.

\* Samsung's Remote Management solution must be purchased separately.